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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------|------------------|
| 10/057,040 | 01/25/2002 | Michael L. Myrick | 16139/09002-CON | 5497 |
| 7590 | 04/06/2004 | | EXAMINER | SEDIGHIAN, REZA |
| Lloyd G. Farr Nelson Mullins Riley & Scarborough, LLP 1330 Lady Street P.O. Box 11070 Columbia, SC 29211 | | | ART UNIT | PAPER NUMBER |
| | | | 2633 | 7 |
| | | | DATE MAILED: 04/06/2004 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------------------|-----------------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/057,040 | MYRICK, MICHAEL L. <i>✓</i> |
| | Examiner M. R. Sedighian | Art Unit 2633 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 January 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-6 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1-3 is/are allowed.

6) Claim(s) 4 and 6 is/are rejected.

7) Claim(s) 5 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s). _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

1. This communication is responsive to applicant's 1/5/04 amendments in the application of Michael L. Myrick for "Optical Computational System" filed 1/25/02. The amendments have been entered. Claims 1-6 are now pending.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (US Patent No: 5,325,225).

Regarding claim 4, Suzuki teaches a light source (1, fig. 2) in an optical spectroscopy system (col. 3, lines 21-26), a method of compensating for a change in light signal (col. 2, lines 11-23), comprising the steps of: providing a light source (1, fig. 2) that outputs a light signal having a wavelength spectrum (col. 4, lines 16-21 and B, fig. 3); identifying a relationship between intensity of the light signal (A, fig. 3) and a difference between the wavelength spectrum (B, fig. 3) and an expected wavelength spectrum (E, fig. 3) of the light source (1, fig. 1), and based on the relationship, modifying the wavelength spectrum in compensation for a change in the wavelength spectrum of the light signal (col. 4, lines 20-40). Note that the recitation "an optical spectroscopy" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or

structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trinks et al. (US Patent No: 6,023,329).

Regarding claim 4, Trinks teaches a light source (18, figs. 2, 3) in an optical spectroscopy system (col. 3, lines 58-65), a method of compensating for a change in light signal (col. 3, lines 1-3 and col. 5, lines 35-36), comprising the steps of : providing a light source (18, figs. 2, 3) that outputs a light signal having a wavelength spectrum (col. 4, lines 26-35); identifying a relationship between intensity of the light signal (51, fig. 3) and a difference between the wavelength spectrum and an expected wavelength spectrum (52, fig. 3) of the light source (col. 5, lines 27-29). Trinks differs from the claimed invention in that Trinks does not specifically disclose modifying the wavelength spectrum based on the identified relationship. Trinks teaches a laser diode 18 that is controlled by a laser controller 44 which controls injection-current of the diode of the laser (col. 4, lines 26-32). Trinks further teaches sweeping up and down of the intensity of the laser (col. 4, lines 31-32) and therefore, sweeping up and down of the wavelength of laser diode 18 (col. 4, lines 33-35). Therefore, it would have been obvious to an artisan at the time of invention that an optical transmission system with a laser and a laser

controller such as the one of Trinks can modify the wavelength spectrum of the light in compensation for a change in the wavelength spectrum in order to provide a stable signal light transmission.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tashiro et al. (US Patent No: 5,946,090).

Regarding claim 6, Tashiro teaches a light source (140, fig. 16) in an optical spectroscopy system (col. 1, lines 5-12, col. 9, lines 13-16), a method of compensating (col. 14, lines 21-24) for change in a light signal (LB, fig. 16), comprising the steps of: applying a light signal (LB, fig. 16) from the light source (140, fig. 16) to a measurement sample (S, fig. 16), wherein the entire wavelength range of the light signal applied to the sample (col. 19, lines 29-38), defining a relationship between change in spectral shape over the wavelength range and change in input power to the light source (col. 9, lines 11-16, col. 14, lines 4-24 and figs. 7, 8, note that figs 7 and 8 shows by changing the input power, the wavelength spectrum changes). Tashiro differs from the claimed invention in that Tashiro does not specifically disclose based on that relationship, relating a change in the spectral shape to a modification in input power, and modifying the input power in compensation for the change in spectral shape. Tashiro teaches a change in output of emitted laser beam which resulted from a change in the applying power (col. 11, lines 38-41, col. 14, lines 21-28). Tashiro further teaches controlling the wavelength λ_i of the laser oscillation with a RF signal from a RF power source 20 (col. 11, lines 30-34, col. 13, lines 1-9, col. 14, lines 28-31). Therefore, it would have been obvious to an artisan at the time of invention that an optical transmission system such as the one Tashiro can provide a modified

input power to the light source to compensate for changes in spectral shape of the light signal in order to detect and measure different parameters.

7. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 1-3 are allowed over prior art of record.

9. Applicant's arguments with respect to claims 4 and 6 have been considered but are moot in view of the new ground(s) of rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (703) 308-9063. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

M. R. Sedighian
M. R. SEDIGHIAN
Patent Examiner
Art Unit: 2633